Onboard Autonomous Scheduling Intelligence System, Phase I

Completed Technology Project (2006 - 2006)

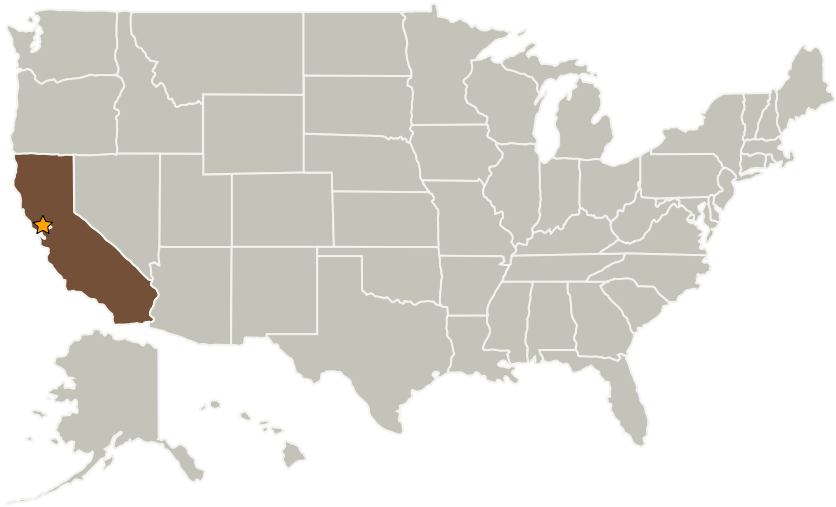
Project Introduction

Scheduling the daily activities of the crew on a human space mission is currently a cumbersome job performed by a large team of operations experts on the ground. This process is expensive, inflexible, and inconvenient for the crew in the spacecraft. As mission durations increase, it will become vital to give the crew more autonomy and reduce operations costs. We propose an Onboard Automated Scheduling Intelligence System (OASIS) that will automate scheduling work, giving the crew more autonomy and drastically reducing operations costs.

Anticipated Benefits

Potential NASA Commercial Applications: Stottler Henke will market OASIS to the commercial space flight community. Also, in the process of implementing the proposed system we will be upgrading our generalized scheduling engine, Aurora, furthering our efforts to market Aurora to the manufacturing and supply-chain community.

Primary U.S. Work Locations and Key Partners



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Ames Research Center (ARC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★Ames Research Center(ARC)	Lead Organization	NASA Center	Moffett Field, California
Stottler Henke Associates, Inc.	Supporting Organization	Industry	San Mateo, California

Primary U.S. Work Locations
California

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Richard R Stottler

Technology Areas

Primary:

- TX07 Exploration Destination Systems
  - TX07.3 Mission Operations and Safety
    - TX07.3.2 Integrated Flight Operations Systems